

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

A280.38
A98
copy 2

OCTOBER 1965



AGRICULTURAL MARKETING

FEEDING VICTIMS OF HURRICANE BETSY PAGE 8





AGRICULTURAL MARKETING

Volume 10, Number 10

Contents

October 1965

Food-Buying Tips for Low-Income Families	3
The Consumer's Interest in Marketing	4
New Wool Standards Take Guesswork Out of Marketing	5
Bonding Protection for Livestock Trading	6
A Better Mechanical Grain Sampler?	7
National School Lunch Week — Oct. 10-16	7
What Does a Hurricane Do?	8
Classing Cotton With Instruments	10
Profile of a Model Egg Packing Plant	11
Consumer and Marketing Briefs	12
How C&MS Aids Farmers' Bargaining Efforts	14
A C&MS Task Force on Co-ops	15
The Cranberry Growers Solved their Marketing Problem	15
The Silent Services of C&MS Food Scientists	16

Reprint Material

All articles may be reprinted without permission. Prints of photos and art used in this issue may be obtained from Photo Library, U.S. Department of Agriculture, Washington, D.C. 20250. Please order photos by the following negative numbers: Cover, BN25749-a.m.; page 3—top from left—N57796-a.m., BN17588-a.m.,—center from left—N57804-a.m., DN2163-a.m.; p. 5, DN2157-a.m.; p. 8, from top—BN25751-a.m., BN25750-a.m., BN25752-a.m.; p. 9, N55324-a.m.; p. 11, BN25426-a.m.

Cover Page

Here are some of the thousands of persons left homeless and hungry in Louisiana in the wake of Hurricane Betsy. Ample supplies of USDA-donated foods were diverted from normal uses in school lunches, family and institutional feeding programs, and rushed to the disaster scenes. See page 8.

ORVILLE L. FREEMAN
Secretary of Agriculture

S. R. SMITH, Administrator
Consumer and Marketing Service

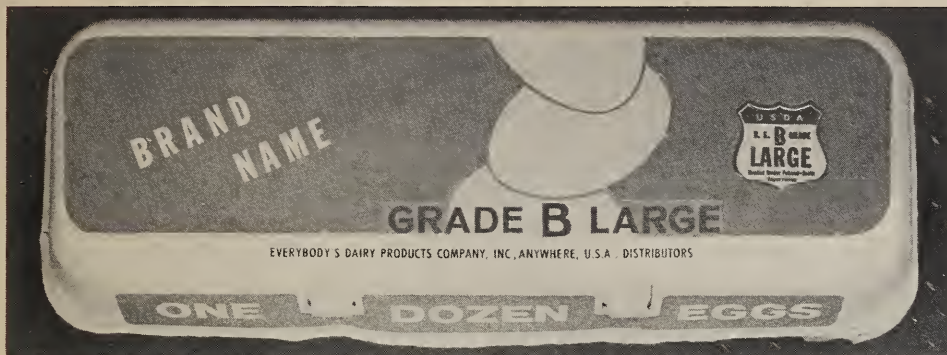
Editor, James A. Horton



AGRICULTURAL MARKETING IS PUBLISHED MONTHLY BY THE CONSUMER AND MARKETING SERVICE, UNITED STATES DEPARTMENT OF AGRICULTURE, WASHINGTON, D. C. 20250. THE PRINTING OF THIS PUBLICATION HAS BEEN APPROVED BY THE BUREAU OF THE BUDGET, JULY 20, 1964. YEARLY SUBSCRIPTION RATE IS \$1.50 DOMESTIC; \$2.25 FOREIGN. SINGLE COPIES ARE 15 CENTS EACH. SUBSCRIPTION ORDERS SHOULD BE SENT TO THE SUPERINTENDENT OF DOCUMENTS, GOVERNMENT PRINTING OFFICE, WASHINGTON, D. C. 20402.

Food-Buying Tips for Low Income Families

from USDA's Consumer and Marketing Service



U.S. Grade B eggs are a bargain. They're as good to eat as U.S. Grade A or AA. The difference is mainly that Grade B eggs may spread out more in the pan when you fry or poach them.

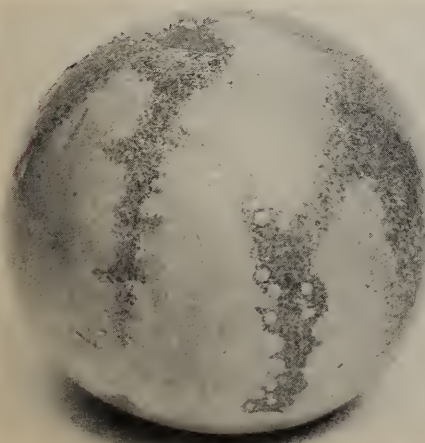
Look for the U.S. Grade A shield (see illustration) when you buy poultry. This mark means that the bird is meaty for its size. (It also assures you of good, clean, wholesome poultry.)



If you buy butter, look for U.S. Grade B. This sells for much less than U.S. Grade A or AA, but it is a good, wholesome product. Grade B butter is usually made from sour cream, and many people like this flavor.



If you can find beef graded USDA Good or USDA Standard (see illustration) you can usually get more meat for your money than you can by buying the higher grades (USDA Choice or USDA Prime). That's because the Good and Standard grade beef has less fat. Because it has less fat, this meat won't be as tender or juicy as higher grade beef—but it's good nutritious food.



Some fresh fruits and vegetables that don't *look* as good as others are sold for a lower price even though they may be just as good to eat. For example, oranges with greenish skins and grapefruit with rust-colored splotches on the skin usually sell for less than those that have a better color. But they taste just as good. Red-skinned apples are priced almost according to the amount of red on the skin — the redder they are the more they cost. But there is hardly any difference in taste. Onions that are misshapen or lopsided and heads of lettuce that are "loose" (not firm and heavy) often sell for

less, but their eating quality is just as good as the better looking ones. Loose heads of lettuce, in fact, usually have more green leaves inside and so more food value. The lowest priced canned fruits and vegetables are usually a very good buy. Canned fruit may be priced low because it is packed in light (less sweet) syrup or because the pieces of fruit are of odd shapes and sizes. Cheaper canned vegetables may not be quite as tender or the flavor may not be quite up to that of the more expensive ones. But all are good food and just as safe and nutritious to eat as the higher priced fruits and vegetables.

The Consumer's Interest in Marketing

By George L. Mehren, Assistant Secretary of Agriculture

(Condensation of an address given at the 1965 Agricultural Leader's Forum, Cornell University)

CONSUMERS are rightly interested in marketing—because to an ever-increasing degree, it is the cost of marketing that determines the price we all pay for our food.

It is true that, as consumers, we have all come to expect a great deal of the persons and processes that make our food available to us. And to an astonishing degree, the foods and services in the market place today do meet most of our expectations.

They do so largely because, in effect, we as consumers demand it—and because a highly efficient and fundamentally competitive producing and marketing system caters to our wants.

Consumers are not a passive force in our markets. Our choices in retail food stores signal to marketers and hence indirectly to farmers what our preferences are in terms of quality, convenience, and price. The products now on grocery shelves were not necessarily put there by our choice—but it is our choice that keeps them there.

Our food buying consists of many minor and frequently recurring purchases selected from among many alternatives—and the alternatives include not only products, but also services, places or times of procurement, and even types of outlets. In these circumstances, any product or channel that does not meet with our favor against the alternatives is not going to be around very long.

So the first line of defense of the consumer interest in marketing lies with the consumer himself—with each one of us. Yet consumer self-protection is possible only with a system like our own which does make many alternatives available—and only when the consumer is well-informed enough to make intelligent choices and is free of grinding poverty.

Many of us need to be and want to be better informed than we are. This is one of the goals of most consumer programs—because unless we are well-informed and intelligent food buyers it is possible for a kind of “Gresham’s Law” to operate—for shoddy products and shady practices to drive out the good.

It is also true that the keeping open of alternatives—of supply, purchase,

and sale—is a goal to which all of us are dedicated, whether we call it that or “free enterprise” or “effective competition” or some other name.

This is important not just to consumers, of course, but to all of us. In actuality, the interests of consumers, marketers, and farmers are so closely intertwined in our complex and interdependent economy as to be almost inseparable. Thus, while the farmer and marketer exist, in a sense, solely to serve the consumer, jobs and incomes for millions of workers and investors also are a critical part of our food system. They, too, have much at stake in the workings of the marketing system.

It is truly in the public interest, therefore, to insure that our system of private enterprise and competitive markets works efficiently and fairly.

We have long realized, in this country, that competitive freedom and the benefits that go with it do come about and are not maintained automatically. We know that Adam Smith’s “invisible hand” needs assistance and guidance, and we have, since the beginning, assigned that role to government.

Many of the governmental functions within the food marketing field are assigned to the Consumer and Marketing Service of the U.S. Department of Agriculture. These include a battery of services—standards, grading, market news and other statistical information—which facilitate the physical process of moving products from the farm through marketing channels to the consumer.

The regulatory functions of the USDA—often overlooked—cover a wide area and include a specific obligation to keep trade channels open and competitive for such major food products as meat, poultry, and fresh and frozen fruits and vegetables.

USDA’s consumer protection programs—meat and poultry inspection, required on all products moving in interstate commerce and similar voluntary programs for fruit and vegetable products, dairy products, and egg products—do more than protect consumers. They also serve to facilitate trade and widen markets for farmers by building consumer confidence and demand.

Consumer food programs help to expand markets for farm products, too

—and they also fulfill a special obligation of government: to provide opportunity for disadvantaged areas and people to help themselves. With the Food Stamp Program, USDA is moving toward meeting this obligation through the normal channels of trade and commercial outlets.

To help improve the diets of the Nation’s children through school lunch and special milk programs is not just an obligation—it is an investment in the development of our Nation’s most precious and promising resource. But these programs also provide the direct benefit of wider markets to farmers and to the food trade.

There are many other services provided the general public by the USDA and most of them, like those mentioned here, contribute equally to the well-being of all segments of our economy—from the farmer through to the consumer.

This is what we have come to expect our government to do—to protect our freedom as individuals, as consumers and as farmers or businessmen, but at the same time contribute to and be responsible for the stability and growth of the economy and equity of opportunity within it.

We believe that we do not have to choose between a totally unordered market economy, without protection and regulation, and totally planned economy. Rather we believe that appropriate activity by government will not displace the free market but will make it both freer and more effective.

As President Johnson has said, “Capitalism in America is what it is today because of the initiative, the enterprise, and the responsibility of our free system. But it also what it is because of the course we have chosen for this government to follow.”

Of course our government will continue in the future, as in the past, to undergird and safeguard the interests of consumers—perhaps even in new ways and in new directions.

In a sense, everything that Government does contributes to the interests of consumers—for consumer interests really are indivisible from the public interest.

Nor, by the same token, are farmer or business interests distinguishable in the long run from the interests of the entire public.

NEW WOOL STANDARDS

take guesswork out of marketing

By E. M. Pohle

IT'S DIFFICULT to imagine an agricultural producer taking his product to market today without a rather definite idea of the price it will bring. It is also difficult to imagine a buyer who didn't have an equally good idea of just what he could afford to pay for the product.

Most agricultural commodities are traded on the basis of Federal or nationally recognized grade standards, and market conditions can be determined simply by checking the latest market news reports.

But for at least one part of the Nation's agricultural industry—the wool trade—well-informed marketing has not been quite so simple. Wool varies a great deal in its characteristics, and there has been no accurate and uniform means of measuring its variability. Thus, wool producers have often taken their clips to market without knowing *what* they had for sale or its value. However a recent revision of the U.S. Department of Agriculture's official grade standards for wool soon should be taking a lot of the guesswork out of wool marketing.

One of the biggest things affecting the value of grease wool (as it comes from the sheep's back) is its fineness—the diameter, or thickness, of the individual fibers. The revised grade standards, developed by the Livestock Division of USDA's Consumer and Marketing Service, are based on average fiber diameter in terms of microns (1/25,400 of an inch). The new standards provide an objective, scientific means for checking average fiber diameter, using modern laboratory techniques and equipment. They also provide for the grading of wool by inspection, since producers and other segments of the industry may not have ready access to laboratory facilities. Actual wool samples will be made available at a modest cost so that visual or inspection grading can be done quickly with a great deal of precision.

The grades still retain their traditional numbers, which originally reflected the length of yarn which

could be spun from a pound of clean, combed wool. There have been 12 of these grades, ranging from "80s" (finest) to "36s" (coarsest). The new standards add four new grades: "finer than grade "80s," grade "62s," grade "54s," and "coarser than grade "36s."

The new standards also consider variations in fiber diameter in the lot of wool. For example, a particular lot might have an average fiber diameter which would qualify it for grade "64s". However, if the variability of the individual fibers is greater than the limits specified in the standards, the lot would be graded "62s", the next lower grade.

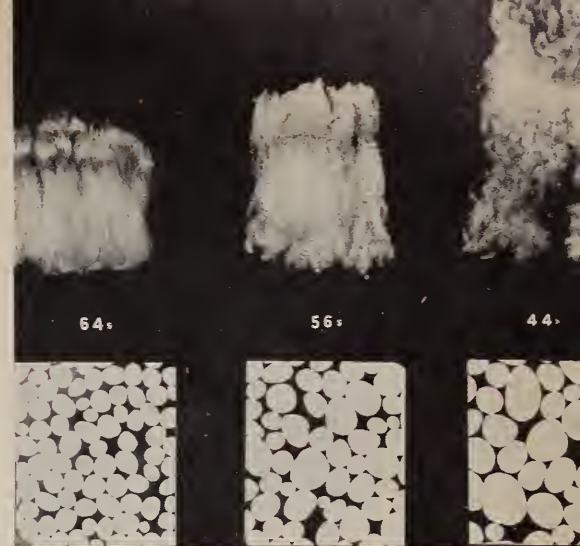
While the Livestock Division's Denver Wool Laboratory is responsible for the development of grade standards, USDA provides no official grading service. In addition to visual or inspection grading, previously mentioned, wool can be scientifically graded by commercial testing laboratories or by warehouse operators and dealers who have the facilities and equipment for making grade determinations. While both methods are official under the new grade standards, in cases of difference, the grade determined by measurement shall prevail.

Early laboratory measurements of wool on the micron basis were performed with a hand micrometer. This was extremely tiresome and time consuming, and definitely too slow for practical use in a busy wool warehouse.

Further study and development by the staff of the Denver Laboratory resulted in the use of a micro-projector which magnifies the fiber 500 times. This permits more accurate measurement of a greater number of fibers in much less time.

Speedier machines used for measuring the fiber of wool are airflow instruments. They measure resistance to the flow of air through a carefully weighed sample of wool.

Researchers also are working on other machines that will make these measurements even more rapidly and accurately.



Wool and photomicrographs of fibers in cross section, magnified, showing comparative fiber diameter and the distribution of diameter for different grades — the basis for the domestic wool grades. Note the difference in size of fibers in grades 64's, 56's and 44's.

Another major factor in establishing the value of wool is the percentage of clean wool fiber present. This is readily done by core-sampling a lot of wool and actually determining the amount of foreign material (dirt, grease, etc.) it contains. This technique is now accepted by the industry as the most efficient method of estimating quantity of clean fiber.

Length of fiber is likewise important in establishing the value of a lot of wool. A staple puller developed by the Denver lab gives a practical measure of the average length and variability in length of wool in a given lot. The staple puller is simply a metal rod with a hook on the end that can be easily inserted into a bag of wool for withdrawing wool staple samples. The staples also are useful indicators of crimp and elasticity—other factors affecting wool value.

The adoption of new wool standards and testing techniques has given precise meaning to generally accepted procedures in the wool business. Through the use of routine sampling and standard analysis of samples, wool producers can know rather precisely what quality of product they have and its relative value. Once all segments of the industry have this information it is relatively easy to arrive at a price that is fair to all interests.

(The author is in charge of the Livestock Division's Wool Laboratory in Denver, Colorado.)

Bonding Protection for Livestock Trading

By Edward L. Thompson

A P&S Act safeguard which helps to eliminate the unnecessary risks sometimes encountered in the business world

TAKING risks is as much a part of our competitive free enterprise system of business as taking a profit or a loss, but there are some safeguards which help to eliminate the unnecessary risks sometimes encountered in the business world.

One such safeguard for the livestock industry is provided through the bonding regulations of the Packers and Stockyards Act, administered by the U.S. Department of Agriculture's Consumer and Marketing Service.

The P&S Act, enacted by Congress in 1921, prohibits unfair, deceptive, discriminatory, and monopolistic practices in the livestock and meat packing industries involving transactions in interstate commerce.

Achieving that objective requires a lot of legislation and administrative regulations, and a lot of diligent enforcement—but it pays off in a lot of protection to the livestock and meat industries.

The bonding regulations issued under the P&S Act require all persons engaged in business as dealers and market agencies, buying and selling livestock in commerce for their own accounts or for the accounts of others, to obtain adequate bonds relating to the payment for their livestock transactions.

Dealers, buying and selling livestock as speculators, are required to be covered by bonds to protect persons from whom they buy livestock. Market agencies, including auction markets, are required to provide bonds to insure payment for livestock sold or bought on an agency basis for the accounts of others.

In September 1965, C&MS's Packers and Stockyards Division put into effect a major revision of the P&S Act bonding regulations—a series of changes based on three years of study and discussion with industry representatives.

The changes simplify and clarify market agency and dealer bonds and strengthen the bonding requirements to afford better protection to those engaged in livestock marketing.

Now, what does all this mean to you as a livestock producer?

Well, for one thing it means that you can do business with nearly 7,900 individual livestock dealers and more than 3,300 market agencies that are registered under the P&S Act and bonded for about \$170 million.

Commercial bonding and surety companies, approved by the U.S. Treasury Department to execute bonds for government agencies, stand ready to pay justified claims which you might make against those bonded registrants who fail to pay for livestock.

The amount of each bond is based on the annual business volume of the individual or firm. For individuals selling livestock on a commission basis or clearing the transactions of other P&S Act registrants, a minimum bond of \$10,000 is required. Dealers and others buying livestock on a commission basis for the accounts of others must obtain a minimum bond of \$5,000.

Bond coverage of dealers and market agencies is periodically checked for adequacy by the P&S Division. All P&S Act registrants must file an annual financial report detailing their volume of business. In addition, P&S Division field personnel audit the books and records of registrants to be sure that bonds are adequate to cover the registrant's current volume of business. Under the new bonding regulations, the Director of the P&S Division is authorized to require an increase in the bond of any registrant whose current coverage is inadequate or whose seasonal or irregular volume of business warrants an increase.

Claims may be filed against the

bonds of registrants who fail to pay for livestock they purchase as dealers, who fail to remit proceeds received from the sale of livestock sold or purchased on an agency basis, or who fail to properly handle and disburse funds entrusted to them to purchase livestock on an agency basis.

Claims may be filed with a financially responsible, disinterested person designated to act as trustee of a registrant's bond. The trustee, with the aid of P&S Division personnel, will investigate the claims, and all valid claims are presented to the surety company. In the event of a dispute on the validity of claims, the claimant or the trustee may file an action with the courts. If the court rules that the claim is valid, it will direct the surety company to pay the claim.

USDA records show that claims in excess of \$1½ million were filed against 63 registrant's bonds in 1964. While USDA has not yet received official verification of the payments of these claims, unofficial figures show that nearly \$400,000 has been paid out, with other claims still pending. Not all claims are paid, of course, because in some cases the claim may be found invalid—bonding provisions of the Act offer equal protection to the claimant and to the dealer or market agency—and in some cases the bond may be inadequate.

The claims which have been paid represent \$400,000 which livestock marketers rightfully had coming to them, but which they might not have received without the bonding requirements of the Packers and Stockyards Act.

(The author heads the Registration Section, Stockyard Branch, of C&MS's Packers and Stockyards Division.)

a better

Mechanical Grain Sampler?

NEW DEVICES that sample grain that is being loaded into railway cars are getting a rugged workout by marketing researchers in the U.S. Department of Agriculture.

The devices being tested by USDA's Agricultural Research Service may prove to be both faster and cheaper than present methods. For one thing, the only human effort involved in obtaining grain samples with the experimental devices is to push a button to turn the sampler on, and then to remove the grain from a container where it's collected by the device.

In commercial operation, the sampler would replace a short section of an elevator spout or be installed at the end of a belt conveyor, where it would automatically gather samples when turned on. Samples are drawn off by a diverter with a narrow opening that cuts through the stream of grain at timed intervals. The diverter collects samples small enough to hold in the palm of your hand. Each sample is deposited in a container that holds all samples drawn by the device from any selected lot of grain.

To determine practicality of the device for commercial use, ARS engineer Harold A. Kramer will sample thousands of bushels of grain under different conditions. He will vary the number of bushels of grain per hour moving through the spout and other factors that might affect sample accuracy.

As small a sample as possible is desired, but not one so small as not to be representative of the grain. To meet these requirements, experiments will be made with diverters cutting through the grain at different speeds, and with different widths of slot openings.

Performance of the samplers will be measured against control lots of grain having known percentages of foreign material, dockage, or other grain.

Samples would be even more representative of the grain than those gathered by the methods used today. The reason: Many small samples are drawn from the entire lot by the

device. With present procedures larger, but fewer, samples are drawn only from selected portions or locations in the grain.

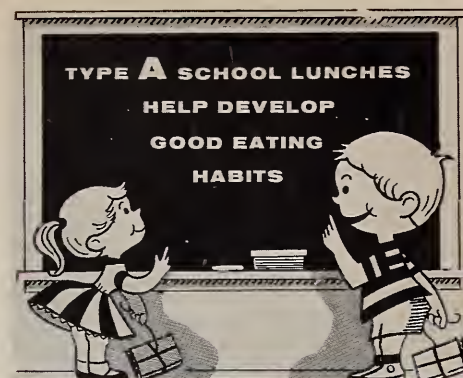
The device would also offer a way out of a dilemma brought about by introduction of Big John hopper cars, as they're called, that hold as much as 200 tons of grain. These large, covered hopper cars are too deep (12 feet) to sample with a standard 5-foot probe. Moreover, the grain settles and becomes so compacted in the large cars that even if longer probes were used it would take almost superhuman effort to force them to the bottom of the load. And power-driven probes might crush part of the sample, downgrading it. These problems with deep, tightly packed loads would vanish if the grain were sampled by the new device as the cars were loaded.

Sampling while loading gives an important time advantage to the new method. No longer would it be necessary for cars to wait idly for hours or days along a siding until sampled manually. And additional time would not be lost in leveling grain in boxcars before sampling it, as is necessary when using probes. Cars could make more deliveries and relieve the growing shortage of railroad cars available for hauling grain.

ARS scientists haven't estimated the potential value of the time that could be saved or that of the additional payloads railroads could carry, but it's far in excess of the cost of the spout samplers.

Spout samplers, if shown to be practical, could be used with equal advantage with soybeans, wheat, corn, and other grain received from or loaded into trucks, barges, or ships as well as hopper and boxcars.

Although development of better sampling devices is an important purpose of the experiments, there's more at stake. New information gained in the experiments will hopefully lead to more precise ways to evaluate sampling equipment in the future. Details of the ARS tests will be published as results become available.



National School Lunch Week – Oct. 10-16

THE PRESIDENT has proclaimed the week of October 10-16 as National School Lunch Week. The week's theme is "School Lunch Serves Child Health."

The National School Lunch Act of 1946 was enacted to safeguard the health and Well-being of the Nation's children and to encourage the domestic consumption of nutritious agricultural commodities and other foods. It is administered by the United States Department of Agriculture's Consumer and Marketing Service in cooperation with State and local school officials across the country. About 71,000 public and non-profit private schools are expected to serve lunches under the program this year.

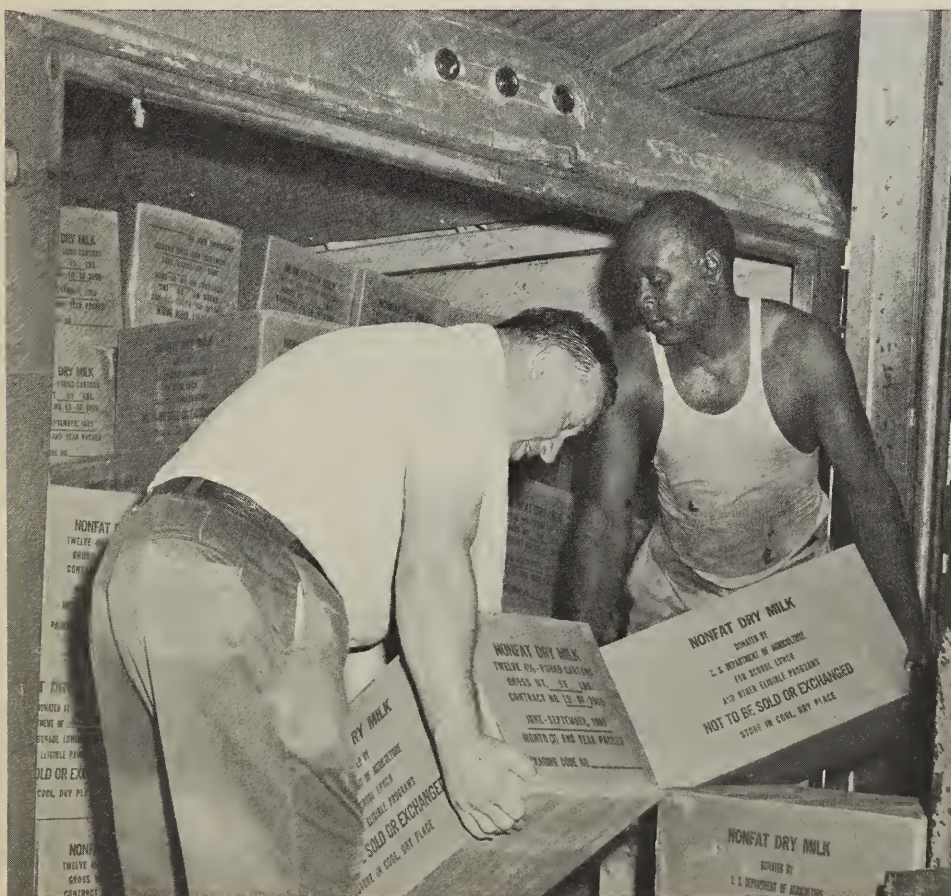
This lunch program makes it possible for children to enjoy a complete lunch for an average payment of 27 cents. However, a tenth of the nearly 3 billion lunches consumed last year were served free or at reduced prices to children who could not afford the full price. The "Type A" lunch, developed to fill the nutritional needs of the school-age child, actually costs about 50 cents. Federal cash reimbursements account for around 4½ cents per lunch. Another 8 cents is contributed when the schools make full use of foods donated to them by USDA from price-support and surplus-removal operations, and supplemental school lunch purchases. State and local sources pay around 11 cents more of the cost.

Last year the total food bill was more than \$950 million. Of that sum, nearly three-fourths, or around \$700 million, was spent by schools in their local agricultural markets, using the money received from the children's payments, from local and State sources, and the \$130 million in Federal cash. The remaining \$254 million worth of food was donated by USDA.

What Does A Hurricane Do?



This Air Force plane is about to rush USDA-donated food from Dallas to Louisiana hurricane victims. Its cargo is 20,000 pounds of canned meat, part of 60 carloads of 11 different foods made available to victims in Louisiana. The food was diverted from original designations to meet the emergency needs.



WHAT DOES a hurricane do — besides destroying property, disrupting communications, causing high tides, bringing torrential rains and floods, contaminating drinking water, killing and maiming?

It finally passes — but it leaves thousands of hungry people with little means of feeding themselves.

Hurricane Betsy did that. When she left Louisiana on September 13, she left behind thousands of hungry people. Getting to them and getting them fed was the standing challenge. Disaster-relief organizations responded. The United States Department of Agriculture's Consumer and Marketing Service was ready as usual with ample supplies of food to meet the immediate emergency. The food was in local storage intended for use in the school lunch program and the needy family and other programs. On September 13, 2 million additional pounds of food was especially earmarked by C&MS for the stricken area. By September 22, more than 4 million pounds had actually been delivered into the stricken area.

By September 22 also, C&MS fieldmen estimated that at least 250,000 hurricane victims were benefiting from USDA-donated food. How could things get rolling so quickly and feeding progress so expeditiously?

Because of a unique, three-way, tie-in between USDA, its National School Lunch Program, and its needy family program.

USDA has a variety of foods to donate to feed the homeless and the stricken. The lunch program's local workers and officials have the experience, competence and skill needed to prepare and serve tasty meals to feed a hungry host. And the schools have the cafeterias and other physical facilities needed for any massive feeding effort. The fact that needy family programs are functioning further, guarantees that ample USDA food is usually available.

In Orleans Parish, for example, 78,000 persons were fed at 26 schools. (These feeding activities were later consolidated at 3 military installations and a Federal quarantine station.)

At the same time, in Lafayette Parish, nearly 10,000 were being fed in nine schools. In St. Landry Parish, over 6,000 were being fed in 13 schools with

An estimated 3,000 persons flocked into this school for shelter and food. They arrived in steady streams by bus, boat, helicopter, car, and every other mode of transportation available. Another 3,500 were in a school across the street.

no end-of-feeding in sight. And in St. Bernard Parish High School, 8,000 were being fed.

To keep these and other stations operating, of course, food had to be moved from storage to utilization point. The Louisiana State Department of Education assigned its entire fleet of trucks to this job. The Louisiana State Department of Public Welfare released USDA food held in 15 of its parish warehouses for the benefit of all the State. The seven C&MS fieldmen on the scene directed, expedited, and coordinated, to keep the trucks loaded and moving, to get them unloaded and back on the road again. The fieldmen were assigned and reassigned as the situation demanded. One hour they might be co-operating with the Red Cross and the next hour working with the Office of Emergency Planning.

In the meantime, 115,000 pounds of food moved from Baton Rouge to New Orleans — three truckloads of canned beef, peanut butter, rice, beans, flour, lard, and margarine.

And two truckloads, 35,000 pounds, moved at the same time from a New Orleans storage installation to a nearby military installation which had only A and C rations available to feed 7,500 hungry people.

The Governor of Louisiana called. More than 90 isolated people in the St. Girard Convent in Covington needed food. Could it be gotten to them? It could and it was.

Another truckload of food dispatched to another feeding site didn't arrive. It had been diverted into a housing project that had been isolated, badly flooded, and without wholesome food — 10,000 families.

These marooned people were speedily taken care of by additional shipments of tasty and nutritious food from USDA stores, including: 74,000 pounds of canned beef, 100,000 pounds of flour, and 13,000 pounds of beans.

The area's canned beef began running low. The U.S. Air Force was enlisted to fly 20,000 pounds from Love Field in Dallas, Tex., to New Orleans. At the same time eight tractor-trailer truck loads moved overland from Dallas to New Orleans. Other supplies were started out from Minneapolis, Minn. One feeding activity was using over 8,700 pounds of canned beef per day.



CLASSING COTTON with instruments

By S. C. Rademaker

*Precision instruments are taking over much
of the quality-evaluation work of the well-versed
cotton expert—and they're doing it better*

WITHIN twenty years, cotton classing in the United States may shift completely to instrument measurements. This would revolutionize the present system of cotton marketing, and would encourage the breeding of cotton for more specific measurements of fiber properties.

There are three reasons why I believe we are headed for an automated method of describing quality. First—the need for more precise measurements of fiber quality, second—the trend in the United States toward gadgets, and third—the lack of training programs in the area of cotton classing.

A few years ago—as few as fifteen—a “cotton man” was considered an individual who was well versed in almost all phases of the industry. He knew production and harvesting, he knew ginning, he knew pricing and the market. Most of all, he knew quality and what it meant in processing. His knowledge came through years of experience in a business that had not changed much in generations and one that depended on human judgment.

Today this is no longer true. With the new high-speed machinery which needs precise settings to run efficiently, there is no longer the freedom for differences of opinion, nor the room for judgment error that there once was.

We think of the development of instruments as a recent thing but actually it started about 25 years ago with the introduction of a strength tester and an instrument to measure fiber length. It progressed slowly until after the war. We first learned about

volume testing when the Micronaire, which measures fiber fineness, was automated along about 1951 and now we're looking for instruments that give an accurate measure of other qualities in 10 seconds or less. Out of this has come a better understanding of the relationships between basic fiber properties, processing, and product quality.

Technical people tell me that there are five basic measurements of spinning performance—percent of manufacturing waste, yarn strength, yarn appearance, bleached yarn color, and dyed yarn color. Since 1946 the Cotton Division of the U.S. Department of Agriculture's Consumer and Marketing Service has been measuring these factors at our two spinning laboratories. We have studied classers' decisions of grade and staple length, and compared them with laboratory measurements which give the same or additional information about fiber properties to determine which was the most valuable as an indicator of spinning performance. Laboratory measurements were found to be better than grade and staple length for predicting four of these five basic measurements, and were equal to grade and staple length for predicting the fifth.

Color, fineness, length, strength, and trash are basic factors of fiber quality, and we have been doing a lot of work in measuring them. For fineness and color we have equipment suitable for testing every bale of American-grown cotton. We hope to have practicable methods for measuring length, strength, and trash in just a

few years. If these machines are successfully developed, we could have measurements for all five at a cost which we can afford. We have no way of knowing what price we can afford, but with other fibers tailor-made for specific jobs steadily taking cotton markets, we may find that we cannot do without a fiber measurement which will help move the right cotton to the right place at the right time to do a specific job.

After the methods for measuring these quality factors are worked out there remains the job of establishing values or prices for each of them. Fundamentally, each quality factor could be broken down into groups or ranges of values. The differences in these ranges would only be small enough to reflect significant quality differences in the mill.

So far, I have made little mention of the role of the C&MS Cotton Division in this system of the future. If we should suddenly find that the mills were specifying color, length, strength, fineness and trash in their purchases we would see some of our programs change very little—others would change drastically. If and when a new set of factors are used to describe quality, it is possible we could be called on to test 95% of the crop as we are now doing with classification under the Smith-Doxey Act. We would, undoubtedly, take an active part in related services—providing check test cottons or standards, sampling inspection, check test programs, and the like. One of our big problems would come in price quotation and market news services. Including quotations for each of the five fiber qualities would involve new price reporting procedures. You can appreciate the difficulties we would have and the need for more specific information.

It appears to me that we are definitely heading in the direction of instrument evaluation in cotton. If this will help to do a better job of describing quality, the Cotton Division is vitally interested. This interest is reflected in our work with instruments where we have taken the lead for several years in the evaluation and application of fiber tests. The challenge to all of us, I think, is to guide and direct the forces which are bringing about this change so the transition to a new marketing system will be orderly, meaningful, and with a minimum of confusion.

(The Author is Director of the Cotton Division, C&MS.)

Profile of a Model Egg Packing Plant

By

Tommy J. Capps and

Clarence E. Harris



CONSIDERING new facilities for grading and packing eggs? You may find many of the features you want in a model egg plant recently designed by marketing researchers in the U.S. Department of Agriculture.

Intercounty Farmers Cooperative in New York will be the first to operate one of the most modern air conditioned egg plants in the country, designed as a model for the industry by USDA's Agricultural Research Service and Cornell University. Operators of other egg plants could also increase their efficiency or expand their business by employing equipment, layout, and construction features found in the ARS egg plant.

About 200 cases of eggs per hour (30 dozen eggs per case) could be washed and graded in the new facilities. This is double the New York co-op's present capacity. Maximum output would be 832,000 cases a year.

In addition, the model plant will be equipped for breaking and freezing small, pee wee, and salvage eggs from the plant's grading lines and other smaller plants and farms in the area. About 40 cases per hour, totaling 2 to 3 million pounds of canned fresh or frozen eggs a year, can be processed in the breaking room when operating at capacity. Space will be available for further processing operations if the co-op wants to expand into the market for frozen omelettes, egg rolls, french toast, and other convenience foods for the consumer.

The latest in scientific refrigeration, sanitation, and handling equipment will enable the co-op to offer better quality products than ever. And better use of space and minimum handling time will also help hold costs below those of less efficiently designed plants.

By starting from scratch, ARS and Cornell planners avoided the congestion and inefficient layouts that are inevitable in older plants that outgrow their facilities. They worked from the inside out, first planning the most efficient size and arrangement of equipment, convenient locations for storage

of eggs and supplies, and the amount of open space needed for safe, unhampered movement of workers, pallets, and forklift trucks.

Exterior specifications to fit the new layout were planned next: slab concrete floors, prefabricated walls, and an aluminum roof. The building is designed without interior columns, which would interfere with the layout and efficient movement of eggs.

About 26,500 square feet are allotted to egg grading, packing, and storage space. Office space would take up 768 or more square feet, and egg breaking in an extension to the main structure would add an additional 7,500 square feet or more to the plant. Some variations in space for each operation are provided in three alternate plans for the plant, which would cost an estimated \$500,000, fully equipped.

The best of three prefab wall systems considered by the engineers consists of double sheets of heavy gauge galvanized steel in panels with urethane plastic foam insulation sandwiched between the sheets. Another type of panel wall, and a system using single ribbed, galvanized steel sheets, both of which would be insulated with glass wool, were also considered. The ribbed galvanized steel is the cheapest, but only in the short run. Heating, air conditioning, and maintenance costs are lower for the double-walled panels than for the ribbed single sheets.

An important feature in the model plant is a single cooler for 17,000 cases of both ungraded and graded eggs. A separate cooler for the graded eggs would cost more initially and require more space and refrigeration equipment than is planned for the model plant.

A line painted on the floor or a movable curtain hung from the ceiling would separate graded from ungraded eggs. Costs would be further minimized by turning off part of the refrigeration equipment when full cooling capacity wasn't needed.

The New York co-op's plant will not be fully equipped to operate at max-

imum capacity at the outset, but will achieve its maximum output as equipment is added in the future.

Pasteurization equipment would increase the total cost by at least \$20,000. Less expensive pasteurizers for low-volume egg breaking plants are being developed and may be available when pasteurization becomes mandatory in 1966 for plants using USDA egg inspection services.

Costs of operating four egg graders, four washers, and related equipment, plus labor, would be about 38 cents per case. This estimate is based on a single work shift, totaling 2,000 hours annually. Costs would be only 35 cents per case if the plant operated on a double shift.

Egg breaking operations would cost 58 cents per case, if the plant operated on a single shift. Costs include labor, two breakers, and related equipment for processing 20 cases of eggs an hour, per breaker. Pasteurization would increase egg breaking costs 7 cents per case.

A labor force of 31 workers could operate the plant. Six would handle egg breaking operations, 25 workers would grade and carry out related operations, and a plant manager, clerk, and maintenance man would round out the plant's 34-man payroll.

Such modern, fast-moving plants can be most easily managed with automated recording equipment that will indicate at any selected moment which equipment is operating and that which isn't. A central panel of red and green lights and chart recording devices in the plant manager's office would indicate how efficiently each piece of equipment was being used. Such electronic aids can help the co-op get the maximum return from its investment. And, not least important, such streamlined plants help to ensure that consumers will continue to get one of their best food bargains in the future.

(The authors are members of the Transportation and Facilities Research Division, ARS.)

CONSUMER AND MARKETING BRIEFS

N. C. ADOPTS MODEL EGG LAW

North Carolina adopted a new egg marketing law on July 1. It is based on the model egg law drafted as a pattern for all 50 States. North Carolina thus follows New Jersey in adopting new laws to create a nationwide uniformity of grades, standards, and weight classes.

FAMILY FOOD RECIPIENTS DROPPED TO 4.7 MILLION

With improved economic conditions over the country and a continued step-up in seasonal agricultural employment, needy family recipients of donated foods in June dropped to 4.7 million persons, or nearly 241,000 under the May 1965 total of 5 million.

Participating counties and cities dropped 22 and 9, respectively, mostly as suspensions for the summer months. Two of the counties, with some 7,000 persons in the family distribution program in May, entered the Food Stamp Program.

FEWER AND FEWER COTTON GINS

Cotton gins in the U.S. are becoming fewer and fewer. This was noted in the annual Cotton Gin Equipment report recently released by the Cotton Division of Consumer and Marketing Service. In July 1965, there were 5,200 active gin batteries in the U.S. compared with 5,250 a year earlier, and 6,800 in 1957. The decrease is due partly to increased investment per gin, and an improved ginning technique.

ARKANSAS RICE EXPORTED THRU MOBILE

A reduction in rail freight rates from 36 $\frac{1}{4}$ to 27 cents per hundredweight on milled rice from Arkansas to Mobile—along with reduced labor costs—have resulted in Arkansas rice being exported through the port of Mobile, Ala. Traditionally, Arkansas rice has moved through the ports of Lake Charles and New Orleans, La.

COTTON PLANTINGS BY VARIETIES

Four varieties of cotton accounted for nearly two-thirds of the cotton acreage planted in the United States in 1965, according to the annual report, *Cotton Varieties Planted 1961-1965*, recently released by the Cotton Division, Consumer & Marketing Service. These varieties in order of importance are Deltapine, Stoneville, Acala and Lankart. Deltapine retained the lead among varieties, accounting for over one-fifth of the total U.S. acreage planted in 1965. The acreage planted to Stoneville increased substantially over 1964's and moved into second place ahead of Acala. Carolina Queen, a relatively new variety that is grown primarily in the Southeastern States, ranked fifth.

P & S ACT SUSPENDEES MAY BE EMPLOYED

Revised regulations which become effective Oct. 31 will permit firms subject to the Packers and Stockyards Act to employ individuals suspended for violating P&S Act regulations covering financial condition and bonding, after
(Continued next page)

PLENTIFUL FOODS FOR OCTOBER

Apples, which have become a variable newsworthy item since the time of Adam and Eve, highlight the Consumer and Marketing Service's Plentiful Foods List for October food shoppers. That month is the heavy harvesting season, and supplies will be more plentiful than at any other time during the marketing season. The industry will celebrate "National Apple Week" October 14 to 23.

Other choice foods on the plentiful list are broilers and fryers, turkeys, cheese, rice, onions, shelled pecans, dried prunes and frozen concentrated orange juice.

October marketings of broilers and fryers are expected to run a tenth above a year earlier. Indications are for a heavy late turkey crop, judging by recent poult placements. Cheese production through July of this year was 20 million pounds above last year, as well as 11% greater than the recent 5-year average. In October the dairy industry will hold its annual promotion of "The October Cheese Festival." October will also be "Rice Festival Month", calling attention to this year's record crop, 24% above the 1959-63 average.

Late summer crop onions, one of the homemaker's favorite standbys, are forecast at an all-time record—14% larger than a year ago, and 9% bigger than the recent 5-year average. The new pecan crop of nearly 250 million pounds will be the second largest ever harvested. Dried prunes will be in heavy supply, too, since there is also a big carryover from the previous crop. July 1 stocks of frozen concentrated orange juice totaled over 50 million gallons, as against only 30 million on that date last year.

Every month USDA's Consumer and Marketing Service lists certain foods in plentiful supply. The Plentiful Foods List is made available to all segments of the food industry and the news media—a service to consumers, the food trades, and the farmer.

the specified suspension period. Regulations will permit suspended registrants to be gainfully employed in the livestock marketing industry without incurring financial responsibilities of their own.

ALASKA AND THE FOOD STAMP PROGRAM

Food stamp officials in Washington, D.C., and elsewhere expect some unusual problems with opening of a Project in the Nome-Teller area of Alaska.

Nome is 2,750 air miles northwest of San Francisco and the little community of Teller (population 217) is a little over 100 miles from the Chukotsky Peninsula of the USSR. Nome has one newspaper, *The Nugget*, published three times a week on Mondays, Wednesdays, and Fridays, and one radio station. Latest available statistics indicate about 80 percent of the population in this area have annual incomes of \$4,000 or less. Living costs are 50 percent higher than in Seattle, Wash., and unemployment stands at 20.8 percent.

Secretary of Agriculture Orville L. Freeman designated the Nome-Teller area for the Food Stamp Program on July 13, 1965, following a request for such action by the Alaska Department of Health and Welfare.

FOOD FOR SCHOOL LUNCH

Pupils in all parts of the U.S., this very minute, are enjoying some of the about 10,000,000 pounds of frozen ground beef, the 400,000 cases of apricots, and the 300,000 plus cases of canned green beans, peas, and pineapples that the U.S. Department of Agriculture's Consumer and Marketing Service purchased for them in July and August 1965.

The numbers sound large. But these and other purchases made by USDA for the National School Lunch Program represent about 20 percent of the food needed in the program. The remaining 80 percent is purchased locally, and in 1962-63 the market for school lunch food was nearly one billion dollars.

We're doing a much-improved job of making our food abundance cover the whole of our society—our families requiring public assistance, and our school children. The USDA's food programs are now reaching over 40 million American adults and youngsters each year. The volume of food distributed through these domestic programs has increased from 900 million pounds in 1959-60 to 2.1 billion pounds in 1964-65. In addition, a growing volume of food is moving into the homes of low-income families through commercial channels under the Food Stamp Program.

... Secretary of Agriculture
Orville L. Freeman

"An efficient, competitive, and equitable food marketing industry is of paramount importance to all of the Nation's consumers, and to those of its farmers, its businessmen, and its working men and women who have some role in that industry."

... the National Commission
on Food Marketing.

"Cooperatives today must tailor their product to market requirements. This involves strict quality control; in my judgment it will increasingly include advance scheduling of deliveries. It involves real commitment by the producers—some transfer of decision-making for some activities to the group, for group benefit and at group risk."

... Assistant Secretary of
Agriculture, George L. Mehren

MEAT TIPS

— from meat inspectors of
USDA's Consumer and Mar-
keting Service.

Consumers can rely upon the statement "needs no refrigeration" when used on canned meat products, because the contents have been checked to insure that refrigeration is not needed as long as the can is unopened. This designation is not permitted on canned meat products which require refrigeration. Such products must be labeled "Perishable—Keep Under Refrigeration."

* * *

When an illustration is used on the label of a meat product, you can be sure that it represents the true contents of the package. If it shows six slices of meat, there must be six slices inside. The amount of meat shown in the illustration and any statement on the label as to the amount must agree with the actual contents.

* * *

Any container which is used for fully processed meat products must meet certain standards to protect the consumer. Such containers must be rigid enough to form a definite shape so that the consumer can readily detect any expansion caused by gas and/or spoilage, or any depressions caused by a lack of vacuum in the container.

* * *

Each size of container for meat products must be readily distinguishable from other sized containers for the same product, so as not to mislead consumers. For instance, recently a 7-ounce carton for beef pie was judged unacceptable because it was not easily distinguishable from the conventional 8-ounce size. It was considered to be misleading because neither the net weight statement nor any other feature was prominent enough for consumers to easily distinguish between the two sizes.

* * *

How C&MS Aids Farmers Bargaining Efforts

By S. R. Smith, Administrator, C&MS

Condensation of an address given before the National Conference on Fruit and Vegetable Cooperatives.

THE farmer's problem of lack of bargaining power is as old as farming. But the reasons for a renewed surge of interest in the problem—and in cooperatives as a means of meeting it—are as new as today and tomorrow.

They center around change and the accelerating pace of change—technological change, economic change, even social change—but most of all, change in our farm and food marketing system.

Changes in the way in which our food industry is organized and how it operates prompted President Johnson to propose, and Congress to authorize, the establishment of a National Commission on Food Marketing. The Commission is charged with exploring, explaining and evaluating those changes—and of recommending what, if anything, should be done about them.

Our new and still evolving marketing system brings many pressures to bear upon the producers of farm products—among them those stemming from an increasing amount of direct trading between the producer and the buyer of his product, bypassing the traditional central market. In such trading, where the buyer typically represents a huge concern, the farmer feels his lack of bargaining power very strongly indeed.

In arrangements broadly classified as “vertical integration” the competitive process of trading may be bypassed altogether. Tied in closely with the development of such arrangements is what is often termed “the drive for specification production.”

Even though the physical demands of today's mass merchandising food system are somewhat alien to the very nature of agriculture, farmers actually have already gone far toward meeting them—producing large quantities of uniform quality products.

But the economic problem remains. Stated simply, it is just this: How can an agricultural production system composed basically of small units achieve equitable returns in an economy that in all other segments is marked by concentration of economic power?

Farmers are apt to put it still more

simply: How can we get our fair share?

From the beginning, it has been public policy in this country to foster an agriculture of independent family-operated units. There is ample precedent for the policies of President Johnson and Secretary of Agriculture Orville L. Freeman in seeking to maintain the independence of those units—and in giving strong support to cooperatives as a major means through which this may be accomplished.

The potential for cooperatives—despite the example of many notably successful organizations—has not yet been fully realized in this country. Yet in today's setting, the development of cooperative endeavor may be not only promising, but essential. Cooperative bargaining, for example, definitely has a place. It is not necessarily the only or the exclusive answer. There are other aids to bargaining strength. Traditional marketing, supply, and service cooperatives have grown in size and influence. Government programs, too, can help immeasurably in strengthening the position of farmers in marketing. Some of these programs—marketing agreements and orders, price supports, price assistance through surplus removal operations—aid directly. Others, such as the Consumer & Marketing Service programs of standardization, grading, market news, inspection, regulation of trade practices, food donations, school lunch, and the Food Stamp Program, help more indirectly.

While neither cooperatives nor government programs alone have yet provided the answer to farmers' marketing problems, in combination they may offer much promise. The hard question is what kind of combinations are needed—or work best—under given circumstances. Some down-to-earth guidelines are needed.

For example, consider the relationship between bargaining cooperatives and marketing agreements and orders. Like cooperatives, marketing order programs are a device to enable individuals to act together to do things they could not do as individuals. They differ from cooperatives in one important respect: They contain the power to give industry-wide effect to their provisions. The absence of that authority in cooperatives bears particularly on

the potential success of bargaining cooperatives. It remains a moot issue as to whether cooperative bargaining can go very far without authority to bring the disinterested minority into its contracts. The non-member can often undo the good work achieved by members.

Nevertheless, a marketing order must have the voluntary support and endorsement of a solid majority. And for this reason it is often possible to vote orders into effect only if a substantial part of the marketing of a product is done by a producer cooperative. Therefore, if marketing orders were to be used more widely, it might well be necessary first to establish more effective cooperative associations to provide the strong underpinning of producer organization and support a successful market order program requires.

There is a sort of chicken-and-egg question as to which comes first—strong cooperatives or marketing order programs. But the important point is that they seem to go together. It is not without significance that many of the successful bargaining cooperatives have the aid of either Federal or State orders.

Marketing agreements and orders cannot be looked upon, however, as any sort of panacea. What they can do is strictly limited by law—a law which says that the U.S. Department of Agriculture must see to it that they operate in the public interest. But they can be—and are—an extremely useful tool in bringing about more orderly marketing. And as a bonus, they can help cooperatives gain more cooperation among themselves. They can help producers, acting through their cooperatives, speak with a united voice in the marketplace, thereby strengthening their position in dealing with large marketing firms.

By the same token, cooperatives and cooperative bargaining associations, are limited in what they can be expected to achieve. Cooperation is not solely, or even primarily, a special-privilege device for its members. Its primary purpose is to achieve more orderly marketing, in the public interest. To the extent that cooperatives are granted special privileges, they also have
(continued next page)

special responsibilities to perform for the general good. And at its best, cooperation can and does yield benefits to producers, consumers, and market agents alike.

The U.S. Department of Agriculture is committed to be of service to cooperatives. But what needs to be done cannot be done by USDA alone.

To choose the best course—to ascertain how best to use each instrument of cooperative action and of government authority—calls for teamwork. Producer groups, cooperative leadership, and government must work together to make such decisions, for the benefit of agriculture and in the public interest.

A C&MS Task Force on Co-ops

HOW CAN the Consumer and Marketing Service, in the course of its regular activities, contribute to the strengthening of farmer cooperatives?

In C&MS programs which, under law, grant special recognition and privileges to marketing cooperatives, what criteria should be employed in identifying a bona fide cooperative?

These are the major questions under consideration by a task force of top staff members of C&MS.

The task force was appointed by C&MS Administrator S. R. Smith in response to a directive issued by Secretary of Agriculture Orville L. Freeman.

C&MS is the principal agency of USDA concerned with the domestic marketing of agricultural commodities. It has primary responsibility for providing USDA leadership in consumer and marketing programs.

Since cooperative associations of producers are playing an increasingly important role in the marketing of food and fiber, C&MS has ever-increasing relationships with them. The task force, therefore, is charged with developing guidelines which will aid C&MS in working with cooperatives and provide a common understanding, within C&MS, as to the characteristics which distinguish a cooperative from other organizations.

In addition, the task force seeks to identify those characteristics which will help to strengthen cooperative enterprise. These are intended for use in encouraging the form of organization which will aid producer members in retaining and strengthening their status as individual independent proprietors.

Cranberry Growers solved their marketing problem

*Their co-op adopted a program permitting
them to regulate the handling and marketing
of cranberries in an orderly fashion in 10 States*

THE CRANBERRY marketing agreement and order is an example of the role cooperatives have played in developing programs in which farmers and marketers can work together, with help from the U.S. Department of Agriculture, to solve marketing problems they can't solve individually.

A cooperative marketing association, Ocean Spray Cranberries, Inc.—headquartered in Massachusetts—was instrumental in developing the program back in 1962. This co-op includes about 80 percent of the commercial U.S. cranberry growers. Its members produce about 85 percent of the total U.S. crop of cranberries.

As with the other 43 fruit and vegetable marketing agreement and order programs developed by the fruit and vegetable industries and administered by USDA's Consumer and Marketing Service, the cranberry order permits the industry in the 10 producing States to regulate the handling and marketing of cranberries in an orderly fashion.

The industry—like other agricultural industries—has had its share of problems, some of which were inherent in increased production. Annual production moved from a 1940-44 average of 634,300 barrels to more than 1,000,000 barrels a year in 1955-59. In each of the years 1959, 1960, and 1961, production approached or exceeded one and a quarter million barrels. Despite industry efforts to expand markets, a large part of the crop had to be carried over each year.

With successive large crops and burdensome carryover, the industry was faced with a serious surplus problem. When heavy supplies threatened another large carryover into the 1962 season, the industry decided on the

marketing order approach. The Cranberry Institute, an industry-wide organization, requested USDA to hold hearings on a proposed program.

Public hearings were held, and the Cranberry Marketing Order program was approved in a referendum vote of growers in July 1962. Handlers of the required volume also signed the marketing agreement.

Locally, the program is administered by a 7-man industry committee, the Cranberry Marketing Committee. It authorizes limitations on the total quantity of cranberries that can be handled by requiring each handler to withhold from usual marketing channels part of the berries he would normally market.

The program proved its merit in the fall of 1962, when 12 percent of the crop was set aside and not marketed in usual channels for fresh and processed cranberries. Part of the set-aside berries were used in research on the development of new cranberry products.

Thus, the marketing order, along with development of new products such as cranberry juice cocktail, has helped materially to place the industry in a favorable inventory position.

Today, the marketing agreement and order is still in effect. Growers voted last year to continue it, though its volume-regulating provisions haven't had to be used since 1962.

The marketing order—tailored to the industry's needs—is available should the industry again require its assistance. Meanwhile, one of its greatest contributions is in giving the industry—Ocean Spray and independent growers and handlers—the opportunity to work together for the common good of the cranberry industry.

OFFICIAL BUSINESS

The Silent Services of C&MS Food Scientists

By Dr. Robert J. Lee

CONSUMER protection under the meat and poultry inspection programs of the U.S. Department of Agriculture's Consumer and Marketing Service requires the talents of many people with widely assorted skills, working closely together, often behind the scenes of day-to-day living.

This protection begins with the actual inspection by trained personnel of all meat and poultry products moving across State lines. This inspection is basic to assuring consumers of the wholesomeness of their meat and poultry.

When a housewife purchases a federally inspected meat or poultry product, however, certain "hidden" services of C&MS supplement the protection gained from the actual inspection. In addition to signifying that the product is wholesome, the round "USDA Inspected . . ." mark on the label assures that:

- 1) The cooking instructions on the product have been checked for accuracy, and may have been tested under home-kitchen conditions to insure they are adequate.

- 2) The statement of contents on the label has been examined and approved. Also, it often has been evaluated scientifically in test kitchens and laboratories to assure that the product conforms to the proportions listed on the label. The meat or poultry inspector, while checking the products for wholesomeness, also makes sure that the ingredients used are the same and are in the order of predominance as listed on the label.

- 3) Scientific analysis of the contents of the meat or poultry product has been made on sampled items to supplement continuous inspection that insures no harmful materials are used.

These services are provided by

Consumer and Marketing Service food scientists responsible for labels and composition of inspected products.

All meat and poultry moving in interstate commerce are required by law to be inspected under veterinary supervision for wholesomeness—both before and after slaughter. Convenience items such as frozen, canned and processed meat and poultry products must also be inspected.

Before a product such as a chicken pot pie, a beef stew, or a frozen TV-type dinner is produced under inspection, the label and formula must first be approved by USDA as conforming to standards required by regulations. Technically trained personnel including food technologists are used for this work.

Food technology is a comparatively new profession—little over 25 years old. A food technologist is a scientist (usually with a background in microbiology, chemistry, physics, or food technology) concerned with problems of producing, processing, and preserving foods. He is a specialist serving in a scientific role as "consumer's advocate" for the inspection service, as back-up man for the on-the-scene inspector.

Let's take for example the mythical XYZ Poultry Company which wants to market a chicken pot pie. Since this company ships its products in interstate commerce, Federal poultry inspectors must insure that the product is wholesome. The company submits the label, along with the formula for preparation of the product, to the C&MS Poultry Inspection Branch in Washington, D.C. Here is where the food technologist takes over. The label is first examined from a legal standpoint—does it conform to the requirements of the law? Is the name of the product suitable? Does the product have enough chicken in it to merit the name

"chicken pie"? Does it contain misleading statements?

Samples of the chicken pies are tested by USDA as a further check that the product meets all of the requirements. This is done by a food technologist with the aid of home economists in a C&MS test kitchen.

The product may also be prepared in the test kitchen in the manner described on the label. When the chicken pie is cooked, it should look like the picture on the label. If not, the label on the product must be altered.

The food technologist often draws on the assistance of the poultry laboratory specialist in Beltsville, Maryland, where the product is analyzed for toxic or harmful ingredients.

This process is repeated on other products throughout the year—not only on new products, but also on those previously approved or those questioned by an inspector. This insures that the wholesomeness and reliability of poultry and meat products remain the same year after year.

Veterinarians and scientists in the meat inspection service perform this same type of work for all meat products under Federal inspection. The requirements for meat and poultry inspection are about the same, and are aimed at providing wholesome, sanitary and satisfactory meat and poultry products. This type of work is the responsibility of professional veterinarians and others with advanced training in food science.

The "hidden" services of C&MS, through food science, thus provide an effective supplement to actual inspection of all products in assuring consumers of the wholesomeness of meat and poultry products.

(The author is Training Officer for the Inspection Branch, Poultry Division, C&MS.)